

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : **NOHKEN:KK**

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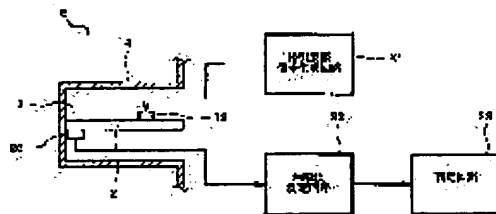
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(54) VIBRATING TYPE LEVEL DETECTOR

(57)Abstract:

PROBLEM TO BE SOLVED: To provide the level detector, which can perform more highly sensitive detection without the requirement for the initial adjustment for correcting the dispersion among respective products and without the time change of characteristics by the effects of temperature change and the like.

SOLUTION: A vibrating plate 2 is fixed to a detecting pipe 4 of a vibrating plate 5, and the vibrating plate 2 is vibrated by the excitation of an exciting piezoelectric element 12. The exciting piezoelectric element 12 is excited on the basis of the exciting signal. The exciting signal is generated in a sweep-exciting-signal generating circuit 21 and imparted to the exciting piezoelectric element 12. The sweep-exciting-signal generating circuit 21 sweeps the exciting signal and imparts the signal to the exciting piezoelectric element 12. The vibration of the vibrating plate 2 is converted into the received signal by an acceleration pick-up and accepted in a steepness measuring circuit 22. The steepness measuring circuit 22 measures Q of the resonance frequency characteristic of the vibrating body 2 (that is to say, the resonance frequency characteristic of the vibrating part 5). The Q, which is measured by the steepness measuring part 22, is imparted to a judging circuit 23. When the Q is less than the specified reference value, it is judged that powder and granular material, liquid and the like come into contact with the vibrating part 5, and the detected signal is outputted.



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